



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,518	03/25/2004	Hiroshi Harada	0425-1029PUS2	5545
2292	7590	07/28/2006		
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
			EXAMINER JOHNSON, STEPHEN	
			ART UNIT	PAPER NUMBER
			3641	

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,518

Applicant(s)

HARADA ET AL.

Examiner

Stephen M. Johnson

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 12/1, 12/4, 12/8, and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) 8-11, 12/8, 13, and 15-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 12/1, 12/4, and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-11, 12/1, 12/4, 12/8, and 13-17 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3641

1. Applicant's election without traverse of the group I invention, an igniter assembly having a metal collar with protruding portions of a particular configuration in the reply filed on 7/13/2006 is acknowledged.

Claims 1-7, 12/1, 12/4, and 14 read on the elected invention and an action on these claims follows. Claims 8-11, 12/8, 13, and 15-17 are withdrawn from consideration as being directed to non-elected group inventions.

2. The substitute specification filed on 4/26/2006 has been approved for entry.

3. The replacement sheet filed on 4/26/2006 has been approved for entry.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4, 6, 12/1, 12/4, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avetisian (175) in view of either Hamilton et al. (6,073,963) or Yabuta et al. (884).

Avetisian (175) discloses an igniter assembly comprising:

- | | |
|--------------------------------------|-------------------------|
| a) an igniter; | 8, 12 |
| b) a cylindrical metal collar; | 4; col. 1, lines 65-67 |
| c) a resin; | 6; col. 2, lines 14-15 |
| d) a collar main body portion; | 16 |
| e) a cylindrical protruding portion; | 24 or between 24 and 16 |
| f) a cylindrical stepped portion; | 26 |

- | | |
|--|--|
| g) a circular inwardly protruding portion; | innermost portion of 16
(adjacent entry of 12 into 6) |
| h) a circular stepped portion; and | innermost portion of 16
(adjacent entry of 12 into 6) |
| i) an outer surface of the first protruding portion
not covered by resin. | see fig. 1 |

Avetisian (175) applies as previously recited. However, undisclosed is an upper portion of the igniter assembly that is not covered by the enclosing resin. Hamilton et al. (see figs. 1, 2, and 5) and Yabuta et al. (see figs. 1, 5, and 7) each teach an upper portion of the igniter assembly that is not covered by the enclosing binder and/or resin. Applicant is substituting one igniter/binder configuration for another in an analogous art setting as is commonly known in this art. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of either Hamilton et al. or Yabuta et al. to the Avetisian igniter assembly and have an igniter assembly whose upper portion is uncovered by a binder or resin.

6. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avetisian (175) in view of either Hamilton et al. (963) or Yabuta et al. (884) as applied to claims 1-2, 4, 6, 12/1, 12/4, and 14 above, and further in view of Dietzel et al. (083).

Avetsian, Hamilton et al., and Yabuta et al. apply as previously recited. However, undisclosed is a metal casing comprised of alumunim. Dietzel et al. teach a metal casing comprised of aluminum (col. 2, lines 59-61). Applicant is substituting one material type of casing for another as explicitly encouraged by both the primary reference (Avetisian (col. 1, lines 65-66)) and the secondary reference (Dietzel et al. (col. 2, lines 59-61)). It would have been

Art Unit: 3641

obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Dietzel et al. to the Avetsian in view of Hamilton et al. or Yabuta et al. igniter assembly and have an igniter assembly with a housing or casing of a different material type.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Avetisian (175) in view of Hamilton et al. (963) or Yabuta et al. (884) as applied to claims 1-2, 4, 6, 12/1, 12/4, and 14 above, and further in view of Fogle Jr. (498).

Avetsian, Hamilton et al., and Yabuta et al. apply as previously recited. However, undisclosed is a metal casing comprised of iron. Fogle Jr. teaches a metal casing comprised of iron (col. 7, lines 63-66; col. 9, lines 36-37). Applicant is substituting one material type of casing for another as explicitly encouraged by both the primary reference (Avetisian (col. 1, lines 65-66)) and the secondary reference (Fogle Jr. (col. 9, lines 36-37)). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Fogle Jr. to the Avetsian in view of either Hamilton et al. or Yabuta et al. igniter assembly and have an igniter assembly with a housing or casing of a different material type.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-2, 4, 6, 12/1, 12/4, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Oda (556).

Oda (556) discloses an igniter assembly comprising:

Art Unit: 3641

a) an igniter;	4, 5
b) a cylindrical metal collar;	2
c) a resin;	3
d) a collar main body portion;	2
e) a cylindrical protruding portion;	10, 11
f) a cylindrical stepped portion;	10, 11
g) a circular inwardly protruding portion;	9
h) a circular stepped portion; and	9
i) an outer surface of the first protruding portion	see fig. 1
not covered by resin.	

10. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oda (556) in view of Dietzel et al. (083).

Oda (556) applies as previously recited. However, undisclosed is a metal casing comprised of aluminum. Dietzel et al. teach a metal casing comprised of aluminum (col. 2, lines 59-61). Applicant is substituting one material type of casing for another as explicitly encouraged by the secondary reference (Dietzel et al. (col. 2, lines 59-61)). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Dietzel et al. to the Oda igniter assembly and have an igniter assembly with a housing or casing of a different material type.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oda (556) in view of Fogle Jr. (498).


Art Unit: 3641

Oda applies as previously recited. However, undisclosed is a metal casing comprised of iron. Fogle Jr. teaches a metal casing comprised of iron (col. 7, lines 63-66; col. 9, lines 36-37). Applicant is substituting one material type of casing for another as explicitly encouraged by the secondary reference (Fogle Jr. (col. 9, lines 36-37)). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Fogle Jr. to the Oda igniter assembly and have an igniter assembly with a housing or casing of a different material type.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Johnson whose telephone number is 571-272-6877 and whose e-mail address is (Stephen.Johnson@uspto.gov). The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The Central FAX phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 800-786-9199.



STEPHEN M. JOHNSON
PRIMARY EXAMINER

Stephen M. Johnson
Primary Examiner
Art Unit 3641

SMJ
July 25, 2006